



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: Troy Eric Echols (Echols 2 (121315))	)	Group Art Unit: 2663
	)	
Patent Application Serial No.: 09/659,363	)	Examiner: Chang, Richard
	)	
Filing Date: September 12, 2000	)	Docket No.: 013436.0234PTUS (Echols 2)
	)	
For: System For Interconnecting Circuit- Based Terminal Devices With Packet- Based Terminal Devices In A Voice Communication Connection	)	Confirmation No.: 4841
	)	Attachment to Paper No.: 4

Certificate of Mailing Under 37 CFR 1.8

I hereby certify that this correspondence, along with all papers referred to as being enclosed or attached, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop Amendment, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

October 7, 2004  
Date

Elaine C. Von Spreckelsen  
Elaine C. VonSpreckelsen

MAIL STOP AMENDMENT  
COMMISSIONER FOR PATENTS  
P.O. BOX 1450  
ALEXANDRIA, VA 22313-1450

**RECEIVED**

OCT 15 2004

Technology Center 2600

Sir:

**DECLARATION UNDER 37 C.F.R. §1.131**

1. The undersigned inventor, Troy Eric Echols, participated in a development program at Lucent Technologies, having a mailing address of 600 Mountain Avenue, P.O. Box 636, Murray Hill, New Jersey 07974-0636. This development program produced the presently claimed invention.

2. Lucent Technologies employed Mr. Troy Eric Echols. Lucent Technologies is the assignee of the presently claimed invention.

3. I submit this declaration to show proof that I reduced the presently claimed invention to practice in the United States prior to March 2, 2000. This showing will remove United States Patent No. 6,353,660 ("Burger et al.") as a reference against the presently-claimed invention.

4. Exhibit A to this Declaration is an internal Lucent Technologies memorandum that provides an overview of the invention. Exhibit A includes the structure that is now recited in claims 1 – 15.

5. The priority date of the cited Burger et al. patent is March 2, 2000. Exhibit A was prepared prior to March 2, 2000. Exhibit A shows a reduction to practice of the invention in the United States prior to the filing date of the Burger et al. patent. Thus, the Burger et al. patent should be removed from consideration against the presently-claimed invention because it is not prior art.

6. I further declare that all statements herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

---

Date

---

Troy Eric Echols

OIP E

LUCENT

DA'

12/10/99

NRO

OCT 12 2004

12/15/99 IDS # 121315

## Patent Review - Request for Legal Opinion

Submit to: INTELLECTUAL PROPERTY - LAW  
ATTENTION: C. L. WARREN, CORPORATE COUNSEL (IH 2A-401)

SUBJECT: Local Network Oriented Address Conversion Capability for Access of **RECEIVED**  
from the PSTN

OCT 15 2004

**OBJECTIVE:** (What problem does the proposal solve or what purpose does it serve?)

With the advent of voice over packet technology, new types of terminals and new packet signaling protocols have emerged, and with them new and revolutionary packet services. Voice over packet began with PC-to-PC communication over the public Internet. Currently, there is a lot of activity in PC-to-Phone service offerings. However, there is little or no activity that enables Phone-to-PC service. The fundamental issue facing the user of a traditional phone terminal is that the addressing capabilities of the user are limited to the capabilities of both the phone terminal and the PSTN. This essentially limits them to addressing terminals that have phone numbers (combinations of DTMF digits). PCs and other packet terminals that are connected to the network do not naturally have telephone numbers, rather, they are addressed using IP addresses or machine names that resolve to IP addresses (e.g., johndoe@abc.com).

Some voice over packet protocols support assigning E.164 addresses to packet voice terminals (e.g., H.323). Others, such as SIP do not. SIP uses a URL format for addressing that is similar to that used for web pages and email addresses. The assignment of phone numbers to packet terminals for the purpose of enabling voice service is a short-sighted solution. It exacerbates the problem that has been created by the proliferation of wireless phones, fax machines, and pagers. It has the potential to eat up phone numbers at an alarming rate. There need to be mechanisms for addressing packet voice terminals from circuit-based phone terminals in a way that does not eat up phone numbers. The same solution should be applicable to video phones.

**BRIEF DESCRIPTION:** (1. What is it? 2. How does it operate? Rely on attachments for detailed description)

This invention is comprised of service capabilities that allow circuit-based terminals such as traditional phones and video phones to address packet-based terminals without eating up phone numbers. It assumes that the owner of the packet terminal also owns a circuit-based terminal, and reuses the address of the circuit-based terminal for the packet terminal. It employs the use of VXML, ASR, residential gateways, and directory services. The following call flows illustrates the capability:

1. User A at circuit-based terminal TA intends to communicate with user B at packet-terminal TB. User A dials the known phone number of the circuit-based terminal TB2 owned by user B.
2. The call is terminated through the local service provider that services user B, using end office switch C.
3. End office switch C uses VXML server D to present a menu allowing user A to identify whether they are trying to reach the circuit-based terminal or the packet terminal for user B.
4. If user A selects the circuit-based terminal, the call is terminated to the phone number for TB2 as usual. If the packet-based terminal is selected, the VXML server performs a directory lookup to determine the appropriate non-phone number address for the packet terminal TB, and terminates the call through a residential gateway to TB2.
5. User A and User B communicate.

Enhancements to this service would allow the VXML menu to provide other contact information such as for termination to mobile phones, email, etc. Other enhancements would allow user B to register current contact information, so that VXML server would identify the current best option for contacting user B.

**COMPARISON:** (1. What is the known prior art, if any? 2. What are the differences over the prior art? 3. What commercial benefits are derived from these differences?)

Currently, H.323 assigns E.164 format addresses to packet terminals, to allow them to be addressed from circuit-based phones. There is no way in H.323 for a phone to access a packet based terminal that does not have a phone number. SIP provides wide support for PC-to-phone addressing via SIP URLs, but no support for phone-to-PC

## INSTRUCTIONS

addressing. There are proposals for enabling phones to address SIP clients by assigning a country code to the Internet. However, this is not an optimal solution, because addressing still takes place in the DTMF number space.

**USE:** (1. What is the probability of commercial use? 2. What is the expected annual sales volume or revenue, if used? 3. Who outside of Lucent may use it commercially?)

This invention is a potential enabler of circuit/packet convergence services, because it provides a bridge from the old to the new that does not exist today. It allows service providers that are building converged networks to link their PSTN side customers to their packet side customers, in a manner that efficiently manages the telephone number resource pool. It may be sold to ILECs and CLECs.

**ORIGINATORS OF THE PROPOSAL:** (NAME, DEPT. # AND PHONE #)

Troy Echols, JR1E0B000, 630-979-6325

**BUSINESS UNIT(S) INVOLVED:** SAS

**Attorney Consulted:** (Name and date) \_\_\_\_\_ Ext. \_\_\_\_\_

**Submitted by:** \_\_\_\_\_ Ext. \_\_\_\_\_ Date: \_\_\_\_\_

**Approved By:** \_\_\_\_\_ Ext. \_\_\_\_\_ Date: \_\_\_\_\_

**Attachments:** Yes ☐ No ☐ **Financial Project No. (WPN):** \_\_\_\_\_

This form should be completely filled in and signed by one of the inventors. The completed form should be approved by the inventor's supervisor. Two copies of the approved form and any attachments should be sent to C. L. Warren (IL0015 2A-401).